DOCUMENT RESUME

ED 107 743 UD 015 277

AUTHOR Townsel, Charles W.
TITLE Curriculum Designed for Urban Education--Cognitive Style Mapping of Students.
PUB DATE [75]
NOTE 12p.

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS Academic Achievement; Cognitive Development; *Cognitive Processes; *Curriculum Development; Educational Planning; *Elementary Education; Individual Characteristics; *Individualized Instruction; Student Characteristics; Thought Processes; *Urban Education; Urban Teaching
IDENTIFIERS California

ABSTRACT

This document describes a "Cognitive Style Mapping of Students" curriculum in use in the Del Paso Heights School District. In this curriculum, the "cognitive style of the individual" is thought to represent a conglomerate of three "educational sciences": "Symbols and their Meanings," "Cultural Determinants," and "Modalities of Inference." "Symbols and their Meanings" is defined as that area concerned with how an individual seeks meaning from his environment (either through listening or reading), how he perceives, how he responds, and how he relates to feelings, commitments and values. These characteristics are referred to as theoretical and qualitative elements in the individual's cognitive style. "Cultural Determinants" are defined as indicators of how cultural influences affect the way the individual gives meaning to symbols and how he gets meaning from the symbols he uses. "Modalities of Inferences" have to do with how an individual thinks or makes a decision. These three "sciences" comprise the fourth "science" "Cognitive Style of the Individual." A graphic illustration of an individual's status in each science is called a cognitive style map. Each student has his own map--his own cognitive style--which is identified by the teacher. This map is used by the teacher to plan the student's instructional program. (Author/JM)

ED107743

CURRICULUM DESIGNED FOR URBAN EDUCATION-- COGNITIVE STYLE MAPPING OF STUDENTS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

By

Charles W. Townsel, Ph. D.
Superintendent of Schools
Del Paso Heights School District

Tucked away in a northern part of California's capital city is a small elementary school district pioneering an educational concept of improved learning through Cognitive Style Mapping of Students.

While educational systems throughout the country struggle to find ways of improving education, the Del Paso Heights School District identifies learning in terms of the Educational Sciences and is putting it to work. As it works, each teacher becomes better acquainted with the students, identifies their unique learning styles, and provides individual instruction with a capital I.

UD 015277

cosmos - add one

The Educational Sciences are based on the assumptions that

- education is the process of searching for meaning
- thought is different from language
- man is a social creature with a capacity for deriving meaning from his environment and personal experiences
- man uses symbols in his search for meaning.

The Educational Sciences recognizes each student as a unique individual who derives meaning from his environment through his own cognitive style. Cognitive style of the individual, however, is only one of the seven Educational Sciences being applied in Del Paso Heights. The others are:

- symbols and their meanings
- cultural determinants of the meanings of symbols
- modalities of inference

cosmos - add two

- biochemical and electrophysiological aspects of memory
- teaching styles, administrative styles and counseling styles
- systemic analysis decision-making

The cognitive style of the individual represents a conglomerate of three of the above Educational Sciences -- namely, Symbols and Their Meanings, Cultural Determinants and Modalities of Inferences. A further breakdown indicates that these three sciences each have a collection of elements identified as characteristic of the individual's cognitive style.

Symbols and Their Meanings is the area concerned with how an individual seeks meaning from his environment (either through listening or reading), how he perceives through the five senses, how he responds with motor skills and how he relates to feelings, commitments and values.

cosmos - add three

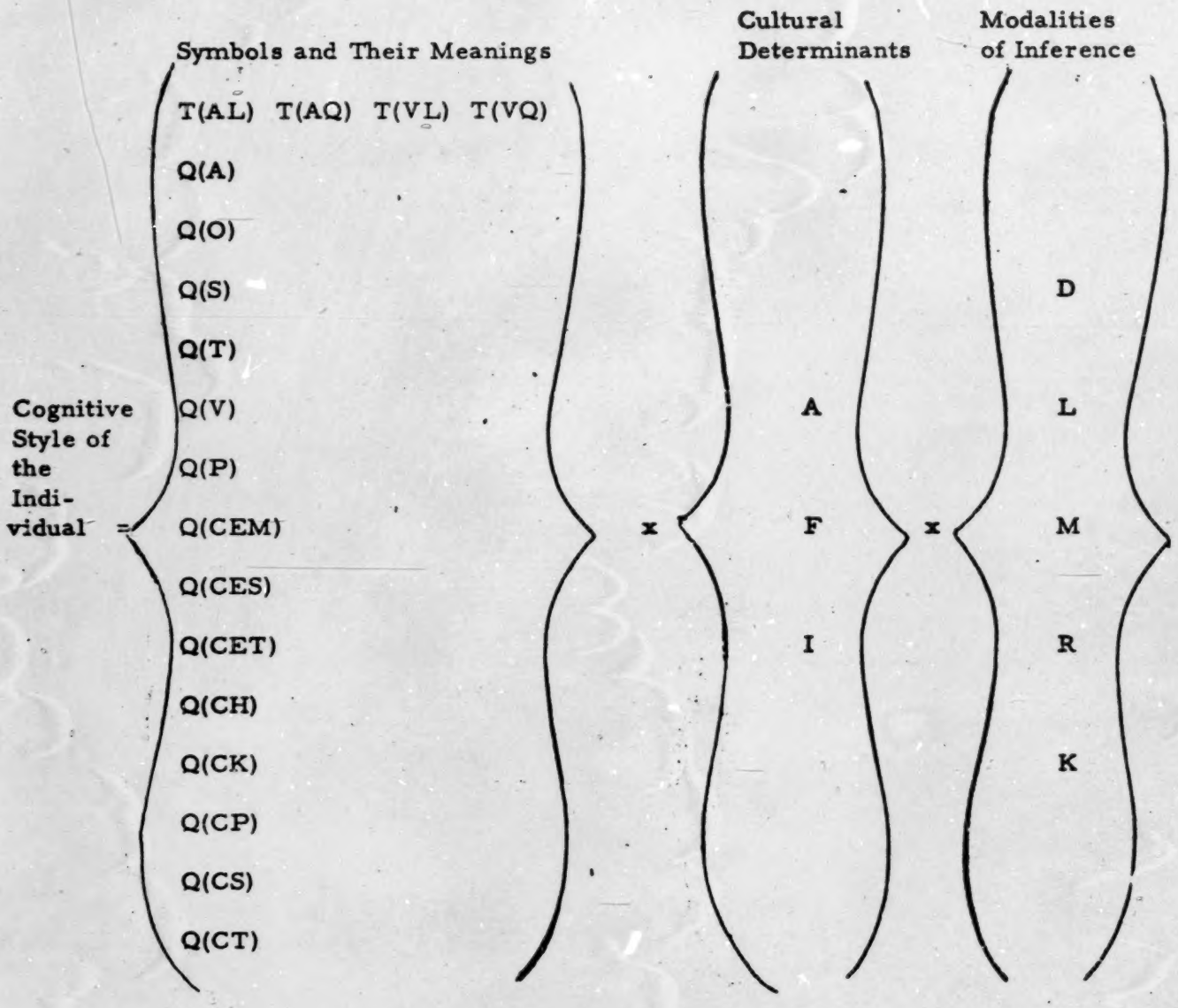
These characteristics are referred to as theoretical and qualitative elements in the individual's cognitive style.

Cultural determinants, also, have elements. They indicate how cultural influences affect the way the individual gives meaning to symbols and how he gets meaning from the symbols he uses.

Modalities of Inferences with its elements provides infcr-mation on how an individual thinks or makes a decision.

A graphic illustration of these three sciences comprising the fourth science -- cognitive style of the individual -- is called a cognitive style map. Each student has his own map -- his own cognitive style -- which is identified by the teacher. In its entirety, the map appears as follows.

cosmos - add four



As the teacher becomes acquainted with the student, the map develops from the above form to one that shows just how the student learns. What follows then is instruction that is especially designed to suit the student's cognitive style.

cosmos - add five

This format of communicating a person's learning style not only looks different--but sounds different as well, when spoken. It represents a new language for all the persons involved in the process of identifying a student's cognitive style -- and matching it with appropriate instruction.

Each letter or combination of letters in the map is a symbol representing a certain characteristic identified as part of an individual's cognitive style.

In the map's first bracket, entitled Symbols and Their Meanings, there are four sets of symbols beginning with the capitol T. This letter stands for theoretical learning which is defined as learning acquired through symbols such as words and numbers. Just how the symbols are acquired and made meaningful to the individual is designated by the letters A or V. The A is for auditory or "acquisition and made meaningful through listening," and the V is for visual or "acquisition through reading." The L in the symbol is for linguistic and stands for words whereas Q, for quantitative, represents

cosmos - add six

numbers. So, in referring to a person who learns and derives meaning from reading words, the teacher says he is a T-A-L, or Theoretical Auditory Linguistic.

Also included in the first set of symbols are those beginning with a Q, which reads qualitative. These are a student's personal qualities and are identified by the mapping teacher as follows:

Q(A) - Qualitative Auditory -- ability to find meaning through the sense of hearing

Q(O) - Qualitative Olfactory -- ability to find meaning through the sense of smelling

Q(S) - Qualitative Savory -- ability to find meaning through the sense of tasting

Q(T) - Qualitative Tactile -- ability to find meaning through the sense of touching

Q(V) - Qualitative Visual -- ability to find meaning through the sense of seeing

cosmos - add seven

Q(P) - Qualitative Proprioceptive Sense - quality one needs for typing or playing a musical instrument

Q(CEM)- Qualitative Code Empathetic -- ability to put oneself in another person's place; sensitive to another's feelings

Q(CET)- Qualitative Code Ethic -- ability to live by a set of principles

Q(CES)- Qualitative Code Esthetic - ability to enjoy the beauty of an object or idea

Q(CH) - Qualitative Code Histrionic - ability to exhibit a deliberate behavior or play a role

Q(CKH)- Qualitative Code Kinesthetic - ability to perform motor skills or muscular coordination

Q(CK) - Qualitative Code Kinesics - ability to use gestures and facial expressions in communication

Q(CP) - Qualitative Code Proxemics - ability to judge the appropriate physical and social distance

cosmos - add eight

Q(CS) - Qualitative Code Synnoetics - ability to see yourself the way you really are or a personal knowledge of oneself

Q(CT) - Qualitative Code Transactional - ability to influence others to do what you want

In mapping the student's cognitive style, the teacher also identifies those cultural factors that influence the student's ability in the theoretical and qualitative areas. Notations reflecting this description are entered in the second bracket of the map, appropriately entitled Cultural Determinants. The letters and what they represent are:

A - indicates influence from associates such as friends or persons other than family

F - indicates influence from family or a family figure

I - indicates individuality or independence in decision making

The third, and presently last, bracket of the student's cognitive style map is entitled Modalities of Inference.

cosmos - add nine

These symbols show how a student thinks or makes decisions. In mapping the student, the Del Paso Heights' teacher identifies and notes the following five symbols:

M - for magnitude, a form of "categorical reasoning" which allows one to make rules and to abide by rules

D - for differences, which suggests a tendency to think in terms of opposites, one-to-one contrasts or comparisons

R - for relationship, which suggests a tendency to think in terms of likenesses or similarities

L - for appraisal, which suggests a tendency to analyze, question or appraise an issue carefully using magnitude, differences and relationships before making a decision

K - for deductive reasoning, which suggests a tendency to think in terms of logical proof

As the teacher considers all these elements in identifying the student's cognitive style, it is necessary also to discern to what degree the element

cosmos - add ten

occurs in the student's style. This is done by noting "major" or "minor" orientation which stand for "strength" or "weakness" respectively. Neither though is valued positively or negatively, but simply accepted as identified. The major orientation appears in the map as presented. But a minor is noted with a prime mark, so it appears in the map looking like this T'(AL). It is read "minor theoretical auditory linguistic" and means that the student is weak in reading.

If the element is not in the student's style, it is referred to being "null," and the symbol is left out of the map.

By applying the Educational Sciences, educators in the Del Paso Heights School District eliminate the guesswork in tailoring a student's instructional program.